MONENCO ANALYTICAL LABORATORIES
A DIVISION OF MONENCO CONSULTANTS LIMITED

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March 29, 1985

Dr. Lloyd Dalton
CANMET
555 Booth Street
Ottawa, Ontario
K1A 0G1

Dear Dr. Dalton:

Re: DSS File 36SR 23241-4-1701
Contract Serial OSR84-00207

Analysis of Fish Meal For Radionuclides - II

We have completed analysis of the two samples designated Bone Meal and Protein for uranium, radium-226, thorium-230, lead-210 and polonium-210. Each sample was put into solution by dissolution using nitric/perchloric/hydrofluoric acids.

Radium-226, thorium-230 and polonium-210 were determined by alpha spectrometry, while lead-210 was determined by indirect measurement (beta counting) of its daughter, bismuth-210. The tracers used were barium-133, thorium-234 and polonium-208. The sample sizes taken were 5 grams for each isotope measurement. Please note that the radiochemical data are expressed in units of becquerel per kilogram of sample, while the uranium contents are expressed in units of micrograms per gram of sample. The moisture content of the protein (sample RS5131) was found to be 0.2%.

The results are as follows:

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Monenco No.	Sample Description	U, µg/g	Ra-226 (BQ/kg)	Th-230 (BQ/kg)	Pb-210 (BQ/kg)	Po-210* (BQ/kg)
RS5130-1	Fresh Water fish-bone	≤0.1	0.62±0.15	0.13±0.08	≤30	7±2
RS5130-2	Fresh Water fish-bone	≤0.1	0.85±0.18	≤0.10	≤30	7±2
RS5131-1	Fresh Water fish-protein	≤0.1	≤0.5	0.27±0.08	≤30	7±2
RS5131-2	Fresh Water fish-protein	≤0.1	≤0.5	0.36±0.13	≤30	8±2

* as of April 10, 1985

If you have any questions don't hesitate to contact either myself or Dr. Chiu.

Yours truly,

J.R. Dean, Ph.D.
General Manager

JRD:be